

ABSTRACT OF THE INVENTION

Drug dosage forms, which are housed in oral devices, and methods for controlled drug release are provided. The oral devices are permanently or removably inserted in the oral cavity and refilled or replaced as needed. The controlled drug release may be passive, based on the dosage form, or electronically controlled, for a high-precision, intelligent, drug delivery. Additionally, the controlled release may be any one of the following: release in accordance with a preprogrammed schedule, release at a controlled rate, delayed release, pulsatile release, chronotherapeutic release, closed-loop release, responsive to a sensor's input, release on demand from a personal extracorporeal system, release in accordance with a schedule specified by a personal extracorporeal system, release on demand from a monitoring center, via a personal extracorporeal system, and release in accordance with a schedule specified by a monitoring center, via a personal extracorporeal system. Drug absorption in the oral cavity may be assisted by an electrotransport mechanism. The oral devices require refilling or replacement at relatively long intervals of weeks or months, maintain a desired dosage level in the oral cavity, hence in the gastrointestinal tract, for extended periods, address situations of narrow drug therapeutic indices, and by being automatic, ensure adherence to a prescribed medication regimen.